STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY
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July 18, 2000

Dave Ragsdale
EPA Region 10, Office of Water
Washington Operations Office
300 Desmond Drive, Suite 100
Lacey, WA 98503

Subject: Nooksack River Clarifications

Dear Mr. ~~Ragsdale~~ Dave:

I would like to clarify two issues and make one correction.

Clarification of Wasteload Allocations (WLAs) for Publicly Owned Treatment Works (POTWs)

In the TMDL submittal, we made a WLA of 0 to POTWs because their effluent would be required to meet the targets. It has been brought to my attention that the plants must have a WLA greater than 0 to discharge at that level. I have calculated the WLA for the three POTWs and provided a new page 11 incorporating the revised Table 7. The WLA is calculated as a product of the long-term average bacteria concentration (39 cfu/100mL) and the maximum average daily flow converted to Cubic Feet per Second as shown below in Table1.

Table 1. WLA calculation for POTWs

Facility	Flow (MGD)	flow (CFS)	LTA (cfu/100mL)	WLA (CFS*cfu/100mL)
Everson	0.32	0.495148	39	19
Lynden	1.02	1.578283	39	62
Ferndale	2.7	4.177807	39	163
Total				244

Clarification of Units for Loads

The units used for loads in the Technical study in Table 8 on page 23 were reported as cfu/100mL*cfs/day. The units in the submittal report in Table 8 on page 12 were reported as cfu/100 mL/cfs/year. In both instances the units are cfs*cfu/100mL. The technical report Table 8 are based on average daily flow and in the submittal report the averaging period was annual. A revised submittal report page 12 with a clearer heading for Table 8 of the submittal report is

attached. To convert from cfs*cfu/100 mL to cfu/day multiply the numbers in table 8 by $2.447*10^7$. The equation showing the dimensional analysis is outlined below in Equation 1.

Equation 1. Dimensional Conversion from cfs*cfu/100mL to cfu/day

$$\left(\frac{ft^3}{sec}\cdot\frac{cfu}{100\,mL}\right)\cdot\frac{10\cdot(100\,mL)}{L}\cdot\frac{28.31605L}{ft^3}\cdot\frac{86400\,sec}{day}=2.447*10^7\cdot\frac{cfu}{day}$$

Correction of SIS Table 1

After submittal, an error was discovered in Table 1 of the SIS. The text on Page 14 is correct but the table on page 15 had the long-term average instead of the proposed monthly limits for Ferndale and Everson. The value for Lynden was the value that will be included as an interim limit. A revised page 15 with SIS Table 1 corrected is attached.

Thank you for your quick communication of issues you would like to have clarified. If there is any other information I can provide, please give me a call at (360) 738-6254.

Sincerely,

Steven L. Hood, P.E.
Bellingham Field Office

Attachments: corrected pages to TMDL submittal

Load and Wasteload Allocations

There are three WWTPs in the watershed. All discharge directly into the Nooksack River. The target at Brennan will be used to set permit limits. Therefore the WWTPs are assigned a wasteload allocation of zero.

There are two dairies under the NPDES dairy general permit in the Nooksack watershed. There are 16 dairies in the Nooksack watershed that will be under the dairy general permit within a month. The permit only allows those discharges caused by chronic or catastrophic storm events prompting an overflow from facilities designed for a 25-year, 24-hour storm event. Federal requirements adopted by reference in the permit prohibit discharges that would cause an exceedance of water quality criteria. Therefore, the waste load allocations for these streams will remain at zero. The implementation of the Washington State Dairy Nutrient Management Act may result in other dairies being covered by the NPDES Dairy permit and also receiving a wasteload allocation of zero.

A summary of the permits and the associated wasteload allocations is provided in Table 7. Permits have not been issued for several of the dairies that need to obtain coverage.

Table 7. Wasteload Allocations of Nooksack Watershed TMDL (Wasteload Allocation in units of CFS*cfu/100mL)

Permit Id	Facility Name	Wasteload Allocation
WA0020435C	Everson WWTP	19
WA0022454C	Ferndale WWTP	163
WA0022578C	Lynden WWTP	62
WAG013002A	Sand Road Dairy Farm Inc	0
WAG013014A	Dyna Moo Dairy	0
N/A	Aldergrove Farms, Inc.	0
N/A	Behling Dairy Management #2	0
N/A	Bloomquist Dairy Inc.	0
N/A	Bouma Farms, Inc.	0
N/A	Burgler Dairy	0
N/A	De-Gro View Dairy, Inc.	0
N/A	DeGroot Dairy LLC	0
N/A	Glen Blankers Dairy	0
N/A	H & H Farms	0
N/A	Hovander Dairy	0
N/A	Lagerwey Dairy	0
N/A	MJD Farms L.L.C.	0
N/A	Steensma Dairy	0
N/A	North Prairie Dairy	0
N/A	VanderHaak Dairy	0
N/A	Winterberg Dairy	0

The load allocations are based in the loading capacity given above. The targets are closely related to the loading capacity and so both are summarized below.

Table 8. Load Allocations of Nooksack Watershed TMDL

WBID	Tributary or Sub-Tributary	Target Geometric Mean (cfu/100 mL)	Load Allocation (annual average CFS*cfu/100 mL)
WA-01-1050 WA-01-1070 WA-01-1080	North Fork Nooksack	14	123,503
WA-01-1060	Middle Fork Nooksack	14	42,898
WA-01-1030 WA-01-1040	South Fork Nooksack	14	85,401
WA-01-1020	Nooksack at Cedarville	14	253,575
WA-01-1125	Smith Creek	85	2,067
WA-01-1120	Anderson Creek	40	2,505
WA-01-1015	Kamm Creek	35	3,109
WA-01-1016	Mormon Ditch	35	994
N/A	Scott Ditch	49	7,017
N/A	LLPL Ditch	19	421
WA-01-1115	Fishtrap Creek	39	16,189
WA-01-1116	Double Ditch Drain	39	2,595
WA-01-1117	Benson Road Ditch	39	792
WA-01-1118	Depot Road Ditch	39	1,011
WA-01-1119	Bender Road Ditch	39	667
WA-01-1110	Bertrand Creek	49	40,162
WA-01-1111	Duffner Ditch	49	3,538
N/A	Wiser Lake Outlet	59	2,113
N/A	Keefe Lake Outlet	45	2,045
WA-01-1012	Tenmile Creek	39	6,431
WA-01-1014	Deer Creek	39	1,238
WA-01-1010	Nooksack at Brennan	39	517,461

last year. However, the plant is not capable of meeting the limits proposed above. The city is currently designing a new plant that will be capable of meeting the proposed limits. In the interim the city will be issued a new permit with limits below the technology-based limits. When the new plant is completed in three to five years, the permit will be modified or reissued to incorporate the limits protective of the TMDL targets.

SIS Table 1. NPDES Permits for WWTPs Discharging to the Nooksack River

Permit Id	Facility Name	Monthly Geometric Mean	Weekly Geometric Mean	Percent of last 30 samples over 200 cfu/100 mL
WA0022454C	Ferndale WWTP	28 cfu/100 mL	400 cfu/100 mL	10%
WA0022578C	Lynden WWTP	28 cfu/100 mL	400 cfu/100 mL	10%
WA0020435C	Everson WWTP	28 cfu/100 mL	400 cfu/100 mL	10%

The Dairy Nutrient Management Plan will be implemented. All Class A dairies will have implemented farm plans by December 2003.

All county residents with an on-site sewage system (OSS) will receive information on required maintenance during the next 5 years, from Whatcom County Health and Human Services (WCHHS). WCHHS will also certify contractors performing OSS maintenance.

- **Responsible Entities**

SIS Table 2 lists the responsible entities for the implementation of the Nooksack Bacteria TMDL.

Ecology is the lead agency for the Nooksack Bacteria TMDL. Ecology will coordinate closely with the Portage Bay Shellfish Protection District (PBSPD) to avoid duplication of effort and to provide a regulatory backstop. Where goals and/or timelines are not filled in below, they will be determined as part of the preparation of the DIP. The DIP will identify all known potential fecal coliform sources and list the entities with primary responsibility for addressing the sources.

SIS Table 2. Entities, Agencies, and Permittees with responsibility for TMDL implementation

Entity, Agency or Permittee	Actions / Responsibilities	Goals	TIMELINES
Everson Waste Water Treatment Plant WWTP	NPDES permit compliance	Comply with reissued permit	Summer/Fall 2000 unless a compliance schedule is required for significant plant upgrades
Ferndale WWTP	NPDES permit compliance	Comply with amended permit	Summer/Fall 2000 unless a compliance schedule is required for significant plant